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## UTILITY PATENT APPLICATION TRANSMITTAL

Attorney Docket No. 5000-1-414

First Inventor Jeong-Hwan SONG et al.

Title ATHERMAL ARRAYED....

Express Mail Label No. EV 326742096 US

EV 326742096 US Express Mail Label No. (Only for new nonprovisional applications under 37 CFR 1.53(b)) Assistant Commissioner for Patents APPLICATION ELEMENTS ADDRESS TO: **Box Patent Application** Washington, DC 20231 See MPEP chapter 600 concerning utility patent application contents. Fee Transmittal Form (e.g., PTO/SB/17) CD-ROM or CD-R in duplicate, large table or (Submit an original and a duplicate for fee processing) Computer Program (Appendix) Applicant claims small entity status. 8. Nucleotide and/or Amino Acid Sequence Submission See 37 CFR 1.27. (if applicable, all necessary) opecification [Total Pages (preferred arrangement set forth below) 3. X Computer Readable Form (CRF) - Descriptive title of the invention b. Specification Sequence Listing on: - Cross Reference to Related Applications i. CD-ROM or CD-R (2 copies); or - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, ii. paper or a computer program listing appendix Statements verifying identity of above copies - Background of the Invention Brief Summary of the Invention ACCOMPANYING APPLICATION PARTS - Brief Description of the Drawings (if filed) - Detailed Description Assignment Papers (cover sheet & document(s)) - Claim(s) 37 CFR 3.73(b) Statement Power of 10. - Abstract of the Disclosure Attorney (when there is an assignee) English Translation Document (if applicable) Drawing(s) (35 U.S.C. 113) [ Total Sheets Copies of IDS Information Disclosure 12 5. Oath or Declaration [ Total Pages Citations Statement (IDS)/PTO-1449 Preliminary Amendment Newly executed (original or copy) Copy from a prior application (37 CFR 1.63 (d)) (for continuation/divisional with Box 18 completed) Return Receipt Postcard (MPEP 503) (Should be specifically itemized) Certified Copy of Priority Document(s) (if foreign priority is claimed) **DELETION OF INVENTOR(S)** Signed statement attached deleting inventor(s) Request and Certification under 35 U.S.C. 122 named in the prior application, see 37 CFR 1,63(d)(2) and 1.33(b). (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. Application Data Sheet. See 37 CFR 1.76 Other: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) of prior application No.: Examiner Group Art Unit: For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS 33942 Correspondence address below Customer Number or Bar Code Label (Insert Customer No. or Attach bar code label here) Name **Address** State Zip Code City Country Telephone Fax 44,069 Steve S. Cha Registration No. (Attorney/Agent) Name (Print/Type) Signature

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PTO/SB/17 (01-03)
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Effective 01/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

Signature

Complete II Known						
Application Number	Not yet assigned					
Filing Date	July 23, 2003					
First Named Inventor	Jeong-Hwan SONG et al.					
Examiner Name	Not yet assigned					
Art Unit	Not yet assigned					
Attorney Docket No.	5000-1-414					

METHOD OF PAYMENT (check all that apply)			FEE CALCULATION (continued)					
Check Credit card Money Other None		3. ADDITIONAL FEES						
Order L			Large Entity   Small Entity					
Deposit 500 470		ee ode		Fee Code	Fee (\$)	Fee Description	Fee Paid	
Account Number 502-470	10	051	130	2051	65	Surcharge - late filing fee or oath		
Deposit Account Name	10	052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		
Name The Commissioner is authorized to: (check all that apply)		053	130	1053	130	Non-English specification	<b> </b>	
Charge fee(s) indicated below Credit any overpayments		B12 2	2,520	1812	2,520	For filing a request for ex parte reexamination	<b></b>	
Charge any additional fee(s) during the pendency of this application		804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.		805 1	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		
FEE CALCULATION		251	110	2251	55	Extension for reply within first month		
1. BASIC FILING FEE		252	410	2252	205	Extension for reply within second month	<b> </b>	
Large Entity Small Entity		253	930	2253	465	Extension for reply within third month	<b></b>	
Fee Fee Fee Fee Fee Pescription Fee Pa	id <sub>12</sub>	254 1	1,450	2254	725	Extension for reply within fourth month		
4004 750 0004 075 11555 65 5	12	255 1	1,970	2255	985	Extension for reply within fifth month		
1001 750 2001 375 Offiling fee 750.00	<b>  1</b>	401	320	2401	160	Notice of Appeal		
1003 520 2003 260 Plant filing fee	<b>   </b> ₁₄	402	320	2402		Filing a brief in support of an appeal		
1004 750 2004 375 Reissue filing fee		403	280	2403	140	Request for oral hearing		
1005 160 2005 80 Provisional filing fee	7 1 14	451 1	1,510	1451	1,510	Petition to institute a public use proceeding		
SUBTOTAL (1) (\$) 750.00	╕┃₁	452	110	2452		Petition to revive - unavoidable		
		453 1	1,300	2453	650	Petition to revive - unintentional		
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE  Extra Claims  Total Claims  Independent  Claims  Multiple Dependent  Claims  Multiple Dependent		501 1	1,300	2501	650	Utility issue fee (or reissue)		
		502	470	2502	235	Design issue fee		
		503	630	2503	315	Plant issue fee		
		460	130	1460	130	Petitions to the Commissioner	<u> </u>	
		807	50	1807	7 50	Processing fee under 37 CFR 1.17(q)		
Large Entity   Small Entity Fee Fee Fee Fee Fee Description		806	180	1806		Submission of Information Disclosure Stmt		
Code (\$) Code (\$)  1202 18 2202 9 Claims in excess of 20	80	021	40	8021	1 40	Recording each patent assignment per property (times number of properties)	40.00	
1201 84 2201 42 Independent claims in excess of 3	3 18	809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))		
1203 280 2203 140 Multiple dependent claim, if not p	aid 18	810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))		
1204 84 2204 42 ** Reissue independent claims over original patent	1	801	750	2801	375	Request for Continued Examination (RCE)		
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent		802	900	1802	900			
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SUBTOTAL (2) (\$) 0.00  **or number previously paid, if greater; For Reissues, see above			*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40.00					
SUBMITTED BY (Complete (if applicable)								
Name (Print/Type) Steve S. Cha		Re	egistra	tion No	. 44	.069 Telephone 201-518-5518		
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(Attorney/Agent)

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.